

Running head: NON-COMPLIANCE OF PERSONNEL ACCOUNTABILITY

Non-Compliance of Personnel Accountability Systems  
in the Fairlawn Fire Department

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### **CERTIFICATION STATEMENT**

I hereby certify that this paper constitutes my own product, that where the language of others is set forth, quotation marks so indicate, and that appropriate credit is given where I have used the language, ideas, expressions, or writings of another.

Signed:\_\_\_\_\_

### Abstract

The nation's fire service is constantly seeking methods and ideas to reduce the number of firefighter line of duty deaths and injuries. One way to reduce the seemingly consistent number of annual firefighter fatalities is through a practice of personnel accountability on the emergency incident scene. The Fairlawn Fire Department has the equipment and procedures in place to perform incident accountability; however non-compliance in the practice is widespread throughout the organization. This applied research paper will delve into the issues and propose recommendations to help support adherence to personnel accountability in order to support the National Fire Academy's annual goal of reducing firefighter fatalities.

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## Introduction

All types of organizations and governments practice some level of personnel accountability. The fire service is no different. The similarity ends however, with respect to accountability. Many for-profit companies measure accountability in such statistics as meeting sales goals or budgets, attaining profit margins, or achieving a preset number of customer contacts. The fire service gauges accountability by a different yardstick; in the welfare of firefighters on the fireground. Are they going home after the fire? Can they be found in an emergency situation? The members of America's fire service measure successful accountability by going home to their families with the same number of firefighters who arrived at the scene or fire station. The personnel of the Fairlawn Fire Department are fervent in their desire to go home after each and every shift.

Fire ground personnel accountability is a process that tracks firefighters operating on an emergency scene (Parks, 2008). Like many other fire departments, Fairlawn is confronted with issues of personnel accountability on the fireground. Unlike career fire departments, where personnel are assigned to a designated rig or apparatus, combination fire departments dispatch employees as the call is received, on an as needed basis, regardless of the type of emergency. Many departments have developed and instituted a standard operating guideline that addresses fire ground accountability. They have also created and developed a culture that makes accountability a safety priority.

A standard operating guideline directs personnel in a uniform manner prescribing an approach to accomplishing a task or directive. Guidelines are statements of policy, directing an activity and are established by those in authority (Cook, 1998). The Fairlawn Fire Department has developed and implemented standard operating guidelines

instructing members to use one of two personnel accountability systems to track firefighters at emergency scenes. The problem is even with two accountability tracking systems available, firefighters fail to adhere to the standard operating guidelines requiring personnel accountability compliance.

The purpose of this applied research paper is to identify and recommend changes to motivate the training and procedural processes used to promote compliance to the department's standard operating guidelines on personnel accountability. A descriptive research methodology has been utilized to determine reasons behind the present status of personnel accountability non-compliance. The following research questions have been developed in order to determine reasons for non-compliance to the department's standard operating guidelines on personnel accountability: (a) What are the standards and guidelines for compliance to personnel accountability policies, (b) what are the training and procedural guidelines for personnel accountability systems in departments of similar size, and, (c) what are the reasons firefighters are not adhering to the guidelines regarding the compliance of personnel accountability for the Fairlawn Fire Department?

### Background and Significance

The City of Fairlawn is a small suburb located on the west side of Akron in Summit County, Ohio. Fire, rescue, and emergency medical service (EMS) are provided to the municipality by the City's fire department. The Fairlawn Fire Department, established in 1981, is a combination fire department composed of 15 full time and 35 part time employees (J. Zubay, personal communication, September 23, 2008). A combination fire department is generally considered one that employs both full and part time personnel in order to meet the organization's goals and objectives (Coleman, 2002).

Being a combination department presents the administration and firefighters with some fire ground accountability issues not typically seen in a strictly full time or career oriented fire department.

The City of Fairlawn Fire Department is staffed with anywhere between four and ten personnel on a daily basis. The make-up of station manning generally consists of two administrative captains; one shift lieutenant, who is the shift supervisor; one training lieutenant; one lieutenant for the inspection bureau; and the balance of personnel composed of full time or part time personnel classified as firefighter / paramedics. Shift supervisors are granted the authority to maintain a minimum staffing of four personnel as outlined in the Department's Supervisory Guidelines (Fairlawn Fire Department, 2004). The shift lieutenants are responsible for and function in a role and capacity similar to that of a battalion chief or battalion captain rather than the traditional role of a company officer which is more in line with the lieutenant title. Personnel are dispatched as calls for service are received. For example, a 9-1-1 call requesting emergency medical services will be handled by the shift supervisor and three firefighter / paramedics. The crew would then respond in the appropriate apparatus and the patient treated as necessary. Should a second call for service be received, the remaining personnel would handle. If the initial call is for an engine response, then the shift supervisor, along with a minimum of three firefighters would respond with the shift supervisor assuming the role of Incident Commander (IC). Any additional resources would be requested from either a call back procedure or through mutual or automatic aid agreements with surrounding communities.

The above demonstrates the unknown nature of what each fire department response may require in personnel and resources. With members responding in a variety

of apparatus, accountability can become convoluted. Personnel are unable to place accountability tags or devices on any specific apparatus due to the unknown nature of which piece of equipment will be needed for response. Personnel accountability is generally an after thought on emergency responses with little or no adherence to its utilization or enforcement.

On paper, the Fairlawn Fire Department utilizes two different personnel accountability systems each to track individuals at emergency scenes. One accountability system uses personal identification tags which were developed for use by Summit County fire departments. Every fire department member is issued two personal identification accountability tags. The individual tags are color coded with one personal identification tag left in the apparatus on which the member arrived, or was assigned, and the second identification tag going to a sector officer. This county wide system is utilized within the department and on mutual and automatic aid responses.

The second accountability system was developed by Grace Industries and is marketed as the GEM System. This electronic system includes an alarm transmitter, called a T-PASS II, which is issued to every Fairlawn firefighter, and a base receiver. In the event of a firefighter emergency, the system is designed to send a distress signal from the transmitter back to the base receiver relaying the firefighter's status to Incident Command (Grace Industries, n.d.). Similar to the tag system, each Fairlawn firefighter is required to utilize their T-PASS II device anytime firefighting turnout gear is worn (R. Hose, personal communication, May 21, 2007). The GEM System is an accountability tool within the Fairlawn Fire Department; however, none of Fairlawn's surrounding fire



jurisdictions use the Grace Industries product. Both accountability tracking systems are addressed in the departments Standard Operating Guidelines (see Appendix A).

Every firefighter of the Fairlawn Fire Department is issued accountability tags and a Grace T-PASS II device. The accountability tags are typically clipped to the D-ring on the rear of individual firefighter's helmet. Prior to arriving on the emergency scene, each person riding on the apparatus is to give their green tag to the officer or senior person riding in the officer's position who then places the tag onto the apparatus' accountability ring. When the crew or individual members of the crew are given an assignment, the crew or individual firefighters proceed to the designated Safety, Accountability, or Sector Officer and transfers to that person their red tag. Once their assigned task is complete, they return to their sector officer to retrieve the red accountability tag. The crew or individual then returns to their assigned apparatus, where they are then given back their green accountability tag.

The T-PASS II device is also issued to each Fairlawn firefighter. They are composed of three pieces; (a) the T-PASS II transmitter unit, (b) a lanyard, and (c) a device "key" which, when removed from the T-PASS II, automatically activates the unit. Each firefighter is to keep the lanyard attached to the turnout gear rack, which in turn, is connected to the T-PASS II key. The T-PASS II device is clipped to an individuals gear. In this manner a firefighter can grab their gear from their storage rack and, in the process, automatically activate their T-PASS II.

One of the critical elements in incident management is fireground accountability (Angle, Gala, Harlow, Lombardo, and Maciuba, 2001). Incident managers need to be aware of the location and status of all personnel on the fireground. If a firefighter MAY-

DAY is declared then the incident commander can activate rescue teams and give them the location of the downed, lost, or trapped firefighters. Maintaining an accurate accountability system helps keep our firefighters' welfare a key priority. It also meets one of the five operational objectives of the United States Fire Administration; the reduction in firefighter deaths from fire (USFA, 2008).

### Literature Review

The Fairlawn Fire Department has a problematic history of complying with the personnel accountability procedures laid out in the department's Standard Operating Guidelines. However, adhering to those and other guidelines is more than just reading and obeying departmental policy. Motivation is a key ingredient in promoting compliance to organizational mandates. This literature review has researched not just the fire service's compliance to departmental policies, but also, corporate world practices aimed at employee safety and accountability. The literature review will also provide sources of mandated compliance to firefighter personnel accountability and describe employee engagement and motivation in the work place.

Any literature review of firefighter personnel accountability should include an overview of the mandates fire departments follow in order to meet federal, state, and local legislation. One of the most adhered to sources of fire service standards is the National Fire Protection Association (NFPA). The NFPA sets standards for almost all facets of fire service organization and operation. In keeping within that scope, NFPA has developed personnel accountability standards by which most departments follow, either formally or informally.

Major NFPA standards for personnel accountability include *NFPA 1500: Standard on Fire Department Occupational Safety and Health Program*; *NFPA 1521: Standard for Fire Department Safety Officer*; *NFPA 1561: Standard on Emergency Services Incident Management System*; and *NFPA 1982: Standard on Personal Alert Safety Systems (PASS)*. All of these standards address personnel accountability on the fire ground to varying extents.

The major highlights of NFPA 1500 include; the establishment of written standard operating guidelines for personnel accountability; that the incident commander (IC) shall maintain an awareness of all companies and crews as to their location and function, and that all members are responsible to participate, use, and follow personnel accountability procedures (National Fire Protection Association, 2002a). The NFPA recognizes the importance of firefighter safety and has developed an entire section within NFPA 1500 on personnel accountability. Any of the NFPA standards may or may not be adopted by the local jurisdiction; however in the event of investigation or litigation, the department may still be held to the standards as set by NFPA.

NFPA 1521 addresses the function of the Fire Department Safety Officer. The safety officer is a member of the department who, on emergency incident scenes, has the responsibility and authority to alter, suspend, or terminate any fire ground action or activity (International Fire Service Training Association [IFSTA], 2001). This person should be trained and experienced in such fire ground concepts as building construction, fire dynamics, and safety techniques. In some instances, fire department incident safety officers are chosen because that person is free of any assignment, however this practice should be avoided (Angle et al., 2001). The fire department safety officer is responsible

for a multitude of actions and programs, however, one of the primary items listed in Chapter 6 of NFPA 1521 is that the incident safety officer shall ensure that a personnel accountability system is being utilized (NFPA, 2002b).

The fire department incident safety officer functions within the scope of the Incident Management System. NFPA addresses incident management in *NFPA 1561: Standard on Emergency Services Incident Management System*. Personnel accountability is also addressed in Chapter 5 of this document. Section 5.3.1 is very clear in the scope of incident management; “The personnel accountability system shall be used at all incidents” (NFPA, 2005). There are no asterisks, notations, exclusions, or exceptions. Further, the standard goes on to state that standard operating guidelines shall provide additional accountability officers if the incident size or complexity requires the added safety measures (NFPA). This suggests that an officer is also accountable for his or her part in the personnel accountability process. In NFPA 1561 personnel accountability is expressly addressed.

The last NFPA standard discussed in this review is *NFPA 1982: Standard on Personal Alert Safety Systems (PASS)*. While this standard does not directly address personnel accountability, it does provide information on personal alerting devices which, in many cases, are tied to personnel accountability systems. A PASS device is a unit or device worn by firefighters which, when triggered, emits a loud, warning tone, which alerts others that a firefighter may be trapped, lost, or otherwise in trouble. As we shall see later in this research paper, one of Fairlawn Fire Department’s personnel accountability devices also acts as a PASS device. An important point in NFPA 1500 is

that all personnel working in an environment deemed to be immediately dangerous to life and health (IDLH) shall wear a PASS device (NFPA, 2002a).

The State of Ohio addresses personnel accountability through the Ohio Administrative Code (OAC). Specifically, in OAC 4123: 1-21-07, accountability is mandated to be used by the employer. The OAC requires the usage, implementation, and development of standard operating guidelines for personnel accountability at the scene of an emergency (Ohio Administrative Code, October 1, 2008).

Similar to NFPA 1561, The United States Fire Administration (USFA) has developed the National Incident Management System (NIMS) model to help fire departments manage emergency scenes. The NIMS training is broken into several courses to address the varying levels of service within fire departments. These course offerings educate fire service personnel in the art of emergency incident management in which personnel tracking and management are addressed.

As the above standards indicate, using personnel accountability devices, an incident management system, a dedicated safety officer, and utilizing a PASS device are all part of a safety mind set the NFPA views as necessary components in the prevention of firefighter injury and death. Once again this is also in keeping with one of the United States Fire Administration's five operational objectives. Many fire departments across the country adhere to these standards and have successfully incorporated the measures into their own standard operating guides on personnel accountability. The Phoenix Fire Department and the 20-plus area fire agencies around the Phoenix area use a system called Passport to keep firefighters safe on the fireground (Parks, 2008).

The corporate world and non-governmental organizations (NGO's) also practice accountability. Accountability may take on a different flavor because they are not in the realm of life safety, however; private corporations and NGO's strive to know where their employees are and what they are accomplishing. Additionally, the concept of accountability is taken to mean more than just personnel tracking. It is being accountable in an upward, downward, horizontal, and inward fashion. Furthermore, accountability can be termed personal, collective, or individual (Cavill & Sohail, 2007). The type of accountability will depend on a person's role within the organization. Management, administrators, and leaders, both formal and informal, can perpetuate accountability; developing and fostering it as a corporate culture.

Corporations are vested stakeholders in the welfare of their employees. Many corporations and NGO's have been focused on safety issues for over 100 years. These organizations post notices relating to such items as the number of days without a lost time accident (P. Levy, personal communication, December 27, 2008). A company can pride itself on posting a record of continuous operation without an injury or on the job incident. Many organizations cultivate this attitude of employee safety and personnel accountability which in turn fosters ownership and responsibility on the employee's part. Take, for example, the General Motors Spring Hill Manufacturing facility in Spring Hill, Tennessee. The culture at the facility is driven by five core accountability elements; safety program – accident investigation, plant safety review board, employee safety concern process, safe operating procedures, and safety observation tours (Industrial Safety and Hygiene News, 2008).

Similar to a safety officer in the fire service, private companies also practice safe work etiquette. However the company CH2M Hill Hanford Group in Richland, Washington, takes this to a new level and provides an example. They empower workers in the field with a “Stop Work” authority. If an employee sees an unsafe work act they can halt the job at any time. Any employee can stop work, not just one person; they all act as if they are safety officers. Once the job action has been terminated, the employees and management convene to resolve the issue (Industrial Safety and Hygiene News, 2008).

In another example of corporate accountability, Rolls-Royce has begun a campaign called Human Factors. John Anfield (2007), Head of Employee Development, Aero-Repair, and Overall Business at Rolls Royce Aircraft, states that with the high stakes involved, the Human Factors program focuses on why well-trained people make serious mistakes circumventing safety systems. What is of particular interest in the Human Factors campaign and is applicable to the fire service is how it applies to systems engineering. A correlation can be made between the safety systems in place at Rolls-Royce and personnel accountability systems used on the fire ground.

Rolls-Royce instituted the Human Factors campaign as way for employees to report errors and hazards that exist in the work place and in product maintenance. These errors could result in the loss of corporate revenue and business, but also, and more importantly, in lives, as Rolls-Royce is a major player in jet airliner propulsion. One of the key concepts in Human Factors is managers and leaders building trust with the workers who then feel secure in reporting errors (Anfield, 2007). How often does the fire service feel trust in their leaders to report safety errors? In 2006, 106 firefighters lost their

lives and 44,210 fire service members were injured (USFA, 2008a). This leaves the door open to the possibility that trust, or the lack of it, resulted in tragic fire service events.

And some of these events resulted from the lack of personnel accountability.

The Human Factors campaign at Rolls-Royce involves trust being built between management and labor. One way managers can build trust is through a process of focusing on what the organization stands for in its beliefs and practices (Dreillinger, 1998). This in turn will motivate employees to accomplish the tasks and actions required in their day to day activities. Managers who acknowledge mistakes or errors can then act upon them to institute corrective action, promoting a proactive approach, continuing to build trust.

To further expand on the Human Factors principles, the author of this applied research paper made arrangements to speak with John Anfield. One of the questions asked of Mr. Anfield was how did he garner the support of the workers at Rolls-Royce to engage in employee buy-in. One strategy employed was in the tactics used in promoting the program. The word “quality” was replaced with “safety”. A safer program would appeal to the laborers as opposed to presenting a program that improved quality. Mr. Anfield and his team also built upon the Rolls-Royce brand name; one that is typically associated as a world-class organization with the best products and services available anywhere in the world. The experiences and education of the workers was also drawn upon in helping to design the Human Factors campaign. Finally labor leadership was courted in the training programs to create protocol policies (J. Anfield, personal communication, August 15, 2008).



On the other end of the corporate spectrum lies upper management. How did John Anfield and his team inculcate the buy-in of the senior management team? Mr. Anfield had help here in the form of the major airlines. The airlines, which purchase Rolls-Royce's jet engines, helped push the new standards for product and maintenance quality as set by the European Aviation Safety Agency (EASA). With the help of external stakeholders, persuading upper management to commit to a safety program, Human Factors, became a little easier. Senior management already had a just cause culture in place. Mr. Anfield and his team were appealing to their buy-in of the project (J. Anfield, personal communication, August 15, 2008).

Human Factors is a discipline which is at the intersection of psychology and engineering. Its focus is on the design of effective workplaces and products, sometimes called ergonomics and deals with the most effective design of products and procedures (P. Levy, personal communication, December 27, 2008). Human Factors stresses safety and accountability and this correspondence can be applied to the mandates of the USFA and NFPA.

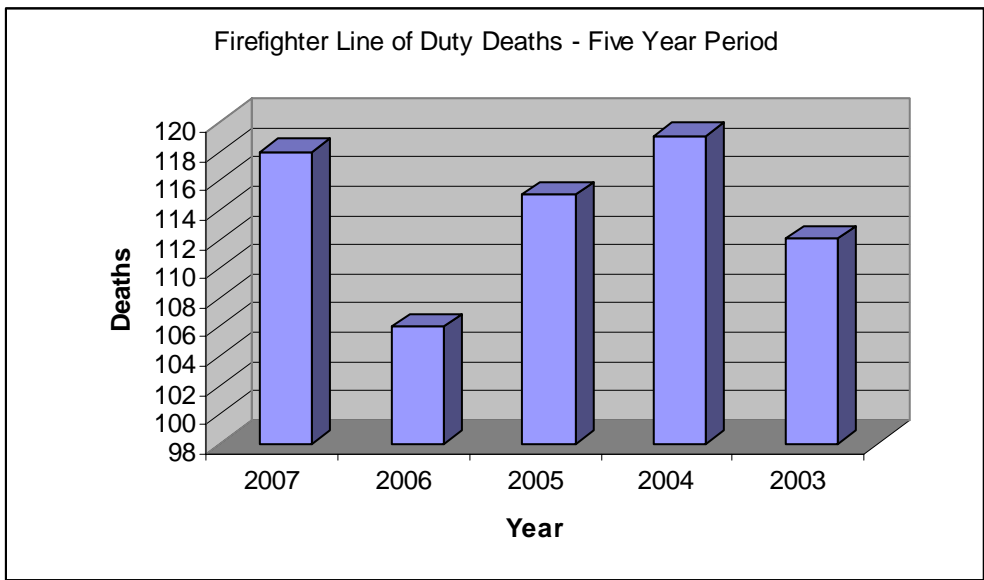
There are many parallels to the Human Factors campaign at Rolls-Royce and the American fire service. Statistically speaking, in 2004 and 2005 combined, the United States experienced 19 million hours of flight time on scheduled air carriers during which there were 32 total loss accidents resulting in 22 deaths. In comparison, and, although not directly correlated, the United States experienced 42,815 road fatalities (Anfield, 2007). Similarities between the airline industry and the fire service can be taken from this and other data.

One similarity seen between the airline industry and the fire service is the body that creates and develops industry standards. The EASA is similar to the NFPA here in the United States. Rolls-Royce had to meet the mandates of Part 145 of EASA and the fire service strives to meet the standards of NFPA 1500, NFPA 1521, and NFPA 1561. These standards address issues such as the implementation and maintenance of programs specific to each discipline. John Anfield stated that, as technology has grown and expanded in the airline industry, as weather forecasting has made air routes easier to calculate, and as training of airline pilots has improved, the only area left that can be attributed to airline accidents is in the scheduled maintenance procedures. Once again a parallel can be drawn to the fire service. The fire service has training in place to read smoke emanating from a burning building, state-of-the-art materials in firefighting gear, improved technologies in communications and information retrieval; all of these items help make the fire service better, but firefighters still die. The parallel lies here when firefighters do not practice personnel accountability. They do not maintain their standard operating guidelines; do not maintain the discipline required to practice personnel accountability, all situations similar to the problems of a jet engine repair facility (J. Anfield, personal communication, August 15, 2008). Where aviation accidents and loss of life can be attributed to mechanical maintenance issues, Firefighter deaths can be partially attributed to the lack of accountability compliance which can be tied to maintaining discipline and adherence to the department's standard operating guidelines. Rolls Royce employed a Human Factors campaign addressing an adaptive challenge solution to the situation. The Fairlawn Fire Department can utilize a similar approach to personnel accountability.

Another similarity is the large disparity in deaths between mass air transport and mass ground transport which resulted in differing outcries for remedies. Like the fire service's 80 fire deaths as of August 15, 2008 (USFA, 2008b), 42,815 traffic deaths are far too many. However when an individual dies in a vehicle accident, it is often attributed to the hazards of driving on our nations highways; an accepted hazard of modern automobile transportation. When a commercial jet airliner accident does occur, with multiple fatalities, public outcry for safer airline travel is immediately followed by multiple agency investigations.

The fire service can be viewed as the ground transport system. We regrettably lose over 100 firefighters yearly in the United States (USFA, 2008). Yet, this is often seen as a necessary part of one of the most dangerous occupations in America. They knew what they were getting into when they signed up for this job is an often heard phrase. The fire service has been losing firefighters at a rate of 100 or more fatalities annually (See Table 1) and some of the deaths have been due to the lack of fire ground personnel accountability systems. The fire service has ample evidence that motivating its members to promote safer fire grounds will reduce firefighter fatalities.

Table 1



Motivated employees will go beyond what is expected of them. They will perform the actions and duties which management has focused upon. This builds employee buy-in or engagement. An engaged employee is one who demonstrates commitment, initiative and a holistic understanding of the organization’s needs and goals (Johnson, 2006). As this applies to the fire service, engagement can be viewed as an employee endorsement of organizational policies, goals and objectives, such as the standard operating guidelines, and rules and regulation documents. The end result would be participation and compliance to personnel accountability practices.

An employee or worker will follow standard operating guidelines or rules and regulations if he or she is directed to follow the order. However, this does not guarantee buy-in or engagement into the process. The fire service manager or officer giving an order may feel in control however in actuality the opposite may be the case. The employee may feel subservient and be resentful resulting in poor performance or non-compliance. Employees and workers are motivated to engage in activities which help

them meet their own needs (Whitmore, 2002). They also will engage in a process or idea when they are involved in the concept and believe in the purpose. Funk (2008) has established three tips to motivate employees: (a) Establish a purpose, (b) communicate the purpose, and (c) the power of the purpose.

Establishing a purpose is relevant in the fire service as we see it in many mission statements. However, many mission, vision, or value statements are just window dressings unless each employee understands the meaning and focuses his or her efforts at statement fulfillment (Johnson, 2006). This requires communication and with it the corresponding skills. When addressing personnel accountability fire departments are attempting to track their members. Presently, the Fairlawn Fire Department uses a monologic approach at compliance; an order is given and compliance is expected. This is the tradition of the fire service. However a double-loop method of communication, one that involves two-way communication between manager and worker, encourages employee participation and fosters engagement. Once the purpose is established and communicated, the power of the purpose helps build teamwork in attaining a common goal (Funk, 2008). That goal is no more firefighter deaths, or as the National Fallen Firefighters Foundation (2008) promotes, "Everyone Goes Home."

Employee participation and compliance with personnel accountability system are a primary means in tracking our firefighters and monitoring their welfare. A lack of a properly implemented personnel accountability system is often listed as a contributing factor in National Institute for Occupational Safety and Health (NIOSH) line-of-duty death reports (Parks, 2008). Knowing the lack or non-compliance to policies regarding

personnel accountability systems contribute to firefighter fatalities, why would an organization, from top to bottom, be so complacent in addressing this issue?

One only needs to look at hurricane season to see the answer comparable to the attitudes in the fire service. It is the old adage it won't happen to us. The State of Florida has enjoyed two hurricane free seasons (Kaye & Ortega, 2008). Hurricanes have developed but have missed Florida. We experience near misses in the fire service with regular frequency. This then breeds more complacent attitudes. One complacent attitude is it won't happen to us. And now the greatest threat to the fire service today is a complacent attitude (Ludwig, 2008).

Complacency is often found in the fire service as firefighters spend much of their time in non-fire or non-emergency situations. Advances are continually occurring in firefighting tactics and equipment, building materials, alarm and suppression systems, and in fire prevention education and fire safety inspections. Firefighters are battling fires in decreasing frequency and view firefighter fatalities as only happening in another department. With an increased sense of complacency comes a decreased sense of urgency. Kotter (1996) expands on this dilemma as part of his eight-stage process of creating change. With a decreased sense of urgency, programs, such as personnel accountability systems, and the change initiatives associated with any program, never really get off the ground. As individuals within the organization become complacent, they also inhibit or become resistant to change. They rest on the past successes of the department which lead to attitudes such as "if isn't broke, why fix it?"

Even though 118 firefighters perished in 2007 (USFA 2008b), unless the fatality occurred in the organization, it may not be highly considered. There is no crisis (Kotter,

1996). The urgency to implement a safety initiative is often met with passive resistance because there is no perceived threat to firefighter health and safety within the organization. The fire agency and its senior management further compound complacency and often paint rosy pictures and describe safety programs with, what Kotter describes, as “Happy Talk”. The year of successes is highly touted while communication, training, and motivation slowly fade with complacency strengthening its silent grip.

Another issue affecting program compliance, and more generally, change initiatives, is the lack of communication. The private business world has learned to adapt to the dynamics of our global society by fostering more communication between manager and worker. Kotter (1996) offers reasons why the lack of communication is often a primary reason change or program initiatives are frequently doomed from the beginning. The fire service has been traditionally a para-military organization with a top down command structure. Two broad deficiencies in communication are the lack of effective and consistent messages and mediums and inconsistencies in what management states as compared to their actions. This is simply leading by example.

The personnel within an organization already mired in complacent attitudes will readily sense when management fails to “walk the walk”. Because urgency is already low in a complacent organization, those who are undecided about changing programs will be further inclined to maintain the status quo especially if management fails to show the way. Kotter (1996) states this succinctly:

We often call such behavior “leadership by example.” The concept is simple.

Words are cheap, but action is not. The cynical among us, in particular, tend not to believe words but will be impressed by action. In a similar vein, telling people

one thing and then behaving differently is a great way to undermine the communication of a change vision. (p. 96)

Any change or implementation of a new or existing program requires that effective two-way communication be applied along with senior managers who are willing to lead and promote an environment in which a learning attitude and leading by example are routinely practiced and exhibited with passion.

Attitudes in an organization are often set in place by senior management. The change or implementation of a personnel accountability tracking system will flow off of the attitude and culture set by management. But real change requires employee buy-in and support of management before the members will embark on a new program (Anderson, 2000). Further, a process that promotes employee participation and follows a logical and planned sequence will be beneficial in promoting the institution of health and safety programs.

Anderson (2000) has developed a ten step approach to developing a team or organization. This approach can be applied to fire service organizations and programs and, in particular, to personnel accountability tracking systems. His approach starts with a clear mandate which is then published and delivered to all levels of the organization. The next step involves employee engagement or buy-in of the organizations mission or vision statement. If an organization can get employee buy-in, then there is instant commitment (Anderson, 2000). This is reinforced by Wren (2005) in his discussion of relationships. He expanded on the theories of Rensis Likert (1903-1981), an organizational change scholar, who emphasized a shared sense of purpose.



The third step involves agreed upon values and beliefs. This can be seen in a personnel accountability system that embodies the beliefs or values the organization holds for the firefighters within the department. While beliefs and values are generally held at an organizational level, the impact of those items carries through to all levels of operation. The fire service tolerates and accepts safety misconduct which can and does result in injuries and fatalities to firefighters (Clark, 2008). The fourth step includes setting goals. Using a clear mandate with agreed upon values and beliefs incorporated into a common goal can place the program into a mind set that is pertinent and real to all involved. Establishing a common, clear goal will set the table for further objectives, plan implementation, and commitments.

Step five builds on the goal setting of the fourth step. It sets highly specific objectives and defines what will be accomplished by a certain agreed upon date. These objectives need to be written and evaluated as progress is made. The objectives are assigned to a member, group, or team, who take responsibility for the task and then share in the overall ownership. The next step involves planning the action steps to achieve the stated objectives. Individual or group achievements may never be realized unless this step is accomplished. Failure to plan may inhibit a department or organization creating an environment of being unprepared in meeting the challenges of today and tomorrow (Grant & Hoover, 1994).

Implementing a program constitutes Anderson's seventh step. This requires follow-through on the manager's part to monitor, recognize achievement, and reward commitment in both formal and informal ways. Regular and meaningful feedback is a necessary part of the implementation process along with training and motivational

incentives. A rewards system to recognize individual or team achievements, whether formal or informal, is a valuable tool in the implementation process. Learning from past experiences is the subject of the eighth step. This includes planning for improved performance. Members can be polled and critiqued on past behavior and productivity which can act as a catalyst for future improvements to the program.

Anderson's ninth step is the actual celebration and enjoyment of the organizations achievements. The fire service is often limited in the size and type of reward that may be bestowed upon an individual or group. However, even if the reward is limited, acknowledging positive actions and behavior sends a beneficial message which employees appreciate (Grant & Hoover, 1994). The last step involves a reexamination of the previous nine steps. An ongoing review of the program may lead to improvements in the program. This may include a reexamination of the mandate as described in step 1. Anderson's ten step model of organizational development has implications for the fire service and can be applied to program such as personnel accountability tracking.

A summation of the literature review offers an overview of standards applicable to the fire service with regard to personnel accountability. These standards are incorporated into many fire department standard operating guidelines. However, studies completed by NIOSH indicate that the fire service does not follow or adhere to standard operating guidelines, national standards, or training regimens (Clark, 2008). One point brought out in the literature review is the need for employee buy-in or engagement to motivate employees to comply with departmental policies and procedures.

Multiple sources indicate the effect of employee engagement seen in the private industry. The examples illustrated at Rolls-Royce, the General Motors Spring Hill

Manufacturing facility, and CH2M Hill Hanford Group offer a glimpse at motivated employees engaged in safety practices for the good of the entire organization. Through motivation, employee buy-in and shared values in mission, value, and vision statements, workers can be influenced to participate and comply with health and safety programs, such as personnel accountability. The literature review offers a ten-step approach laid out for organizational development that is also applicable to any safety program or endeavor.

### Procedures

The procedures used in collecting data for this Applied Research Project included sources of information garnered in the literature review, questionnaires, which were distributed to the Fairlawn Fire Department and the neighboring fire departments of Copley Township and Bath Township, and inclusion of the Fairlawn Fire Department's own standard operating guidelines. A descriptive research method was used to answer the following questions: (a) What are the standards and guidelines for compliance to personnel accountability policies, (b) what are the training and procedural guidelines for personnel accountability systems in departments of similar size, and (c) what are the reasons firefighters are not adhering to the guidelines regarding the compliance of personnel accountability for the Fairlawn Fire Department?

The literature review was completed using web-based searches to locate any correlations to the compliance of personnel accountability systems. The search was directed at methods and processes used as motivational methods for compliance to work place rules and regulations. The search yielded articles and web-based sites which discussed the ideas presented in the literature review. Along with a web-based search, the database EBSCO, an academic research service, was accessed through the resources of

Franklin University in Columbus, Ohio. This source of information yielded professional and academic journals which were then referenced for the review. A further electronic resource was the National Fire Academy's Learning Resource Center which provided direction to seminal sources.

Another source of information was the wide variety of books from the Akron-Summit County Public Library, the Fairlawn Fire Department, and from the author's personal collection. These sources provided information for the literature review from distinguished authors and professionals whom many consider as experts in the fields of public safety, management, and human behavior. These sources provided insights into the areas of motivation and employee behavior. The Fairlawn Fire Department's library of NFPA standards were utilized to provide information into the standards involving personnel accountability and incident management which apply to this Applied Research Project.

The author developed a questionnaire which was distributed to members of the Fairlawn Fire Department, Copley Township Fire Department, and Bath Township Fire Department. All three organizations are considered combination fire departments and operate in a similar fashion. Each department relies upon mutual and automatic aid contracts when responding to emergencies especially on incidents beyond the everyday resources of the host department. The questionnaire developed for the Fairlawn Fire Department varied from the one administered to the neighboring fire departments. This variation was due to the difference in one type of personnel accountability system, namely, in the electronic system used by the Fairlawn Fire Department. All questionnaires used in the Applied Research Project followed a constant and similar

format. The questionnaire was limited to only departments bordering the City of Fairlawn.

The questionnaire disseminated to the members of the Fairlawn Fire Department contained 21 multiple choice statements (See Appendix B). This questionnaire was distributed to all 52 members of the Fire Department. The roster included 15 full-time and 37 part-time employees. Of the 15 full-time employees, 8 are officers with the remaining members classified as firefighter / paramedics. The part-time roster includes one officer with the remainder classified as firefighter / paramedics. An analysis of the part-time firefighter / paramedic roster also reveals that, of the 37 members, 22 are employed as full-time personnel with another fire department, with 4 or those employed full-time serving as officers within their respective organizations.

The questionnaire statements distributed to Bath and Copley Township Fire Departments were identical in composition (See Appendix C). An in-house officer from each organization volunteered as a representative of the author to disseminate the questionnaire. The representative was identified to the members of each of respective departments in the event questions were raised. Directions for completion were included in the questionnaire. The questionnaires for Copley and Bath Township Fire Departments contained 18 multiple choice statements. In the Bath Fire Department, questionnaires were given to 30 members, of which 9 were full-time employees with the remainder being classified as part-time. The officer representing the author with the Copley Fire Department distributed 19 questionnaires; 9 of which went to full-time staff and the remaining 10 to part-time employees. Of the 9 full-time staff members, 4 are officers of

the department. Member identification was not required by the author, however, the questionnaires were returned with the member's names written on them.

The questionnaire was designed to identify what types of accountability systems were employed by the respective departments; if standard operating guides were created and distributed to the members of the respective departments, and if personnel accountability systems were being utilized on emergency scenes over the past 12 months. Also included were statements asking if members were involved in the selection process of the personnel accountability system, if an incident management system were in place within the organization, and if the managers and senior members of the department enforced the use of any personnel accountability systems.

### Results

This Applied Research Project's first research question was: What are the standards and guidelines for compliance to personnel accountability policies? The first standard cited for personnel accountability was *NFPA 1500: Standard on Fire Department Occupational Safety and Health Program*. This standard establishes the need for a personnel accountability system during emergency scene operations. Chapter 8, section 8.3 outlines the needed system components and administrative responsibilities during an emergency incident.

Major points included within the standard state all fire departments are to establish a written standard operating procedure for personnel accountability. A written standard operating guideline establishes a suggested implementation and use of specified procedure. Chapter 8 also explains the responsibility, awareness, and maintenance of a personnel accountability system. Personnel accountability is the responsibility of all

members on the emergency operations scene. All officers are to maintain an awareness of the location and condition of all personnel operating under their supervision.

Personal Alert Safety System Devices are addressed in *NFPA 1982: Standard on Personal Alert Safety Systems (PASS)*. This standard establishes development, design, and operational characteristics for personal alerting safety devices used on emergency incidents. This is especially applicable where PASS devices are utilized in a capacity this incorporates their use into electronic accountability tracking systems, such as Grace Industries' T-PASS unit.

The Fairlawn Fire Department has also developed and distributed a Standard Operating Guideline document which incorporates sections of the above NFPA standards (See Appendix A). The department has created two specific standard operating guides which address personnel accountability. One is based on a countywide tag accountability tracking system and the second is based on an in-house electronic accountability system which also acts as a PASS device. All personnel on the department are required to comply with the operatives of the standard operating guideline. A questionnaire was also developed and distributed to the members of the Fairlawn Fire Department and Copley and Bath Township Fire Departments. The results of the questionnaire are discussed later in this section.

The second research question asks: What are the training and procedural guidelines for personnel accountability systems in departments of similar size?

Copley Fire started personnel accountability training for all members when the program was initiated. The accountability system utilized is one where all members are issued two color-coded plastic tags which are given to a company officer or

accountability officer. The initial training sessions were consistent with the personnel accountability tag system which was developed for Summit County. Personnel were given 6 hours of personnel accountability training at the program's implementation. However, if the member missed the accountability training, they were not required to make up the missed time. Further, any new members hired after the implementation of the personnel accountability program were not required to obtain the training (B. Koellner, personal communication, August 27, 2008).

Continued learning in personnel accountability is practiced at every fire training session at Copley Fire. The responsibility for the personnel accountability training program was delegated to the lieutenants of the department who then developed and implemented the training. The development and implementation of the accountability training was based on the department's standard operating guidelines. Fire department members are required to use the tag accountability procedures during training evolutions or they do not participate. In an example of the effectiveness of the accountability tracking system at fire trainings, a firefighter on a recent training scenario received a cellular phone call which resulted in his leaving the area. The training IC was unaware that the firefighter had left, however, while keeping track of accountability tags, realized that the firefighter was missing. The accountability system worked in training and in theory, however, similar to the situation declared in the problem statement for the Fairlawn Fire Department, the system often fails to be applied and adhered to in actual emergency situations (B. Koellner, personal communication, August 27, 2008).

Members of the Copley Fire Department were given a questionnaire to complete for personnel accountability to address the second research question. Of the 18



questionnaires distributed, 17 were returned. Members of the department were asked if the department has a personnel accountability system and if it meets the requirements of NFPA. A vast majority agreed with the statements. They were also asked if the department has a standard operating guideline addressing personnel accountability, if they have received training on personnel accountability within the past 12 months, and if they have received training in incident management. Once again a vast majority answered in the positive to all three statements. Copley Fire does possess an electronic personnel accountability system. It is part of their Scott Air Pack self contained breathing apparatus (SCBA) (B. Koellner, personal communication, August 27, 2008). When asked how many accountability systems are in place within the Copley Fire Department, 60% stated two systems with 40% replying that only one accountability system was in use.

The responses became a little more divided when the members were asked if they received a copy of the Copley Fire Department's standard operating guideline, and if they had read and understood the content, with 35% answering they had not read and understood the guideline and 41% did not receive a copy of the standard operating guide. When asked if officers and senior personnel implemented and enforced the personnel accountability system 31% responded, no, they had not enforced the standard operating guide.

When the members of Copley Fire Department were asked if they had been placed into a position of responsibility for personnel tracking or accountability, 13 of the 17 answered, no, they had not been placed into such a position. The responses were almost unanimous when members were asked which personnel accountability system

Copley used when responding outside of their own jurisdiction with 15 of 16 respondents checking accountability tags.

Additionally the author spoke with Lieutenant Bruce Koellner, who is in charge of firefighter training at Copley Fire Department, about personnel accountability. Lt. Koellner was able to shed insight on the training and procedures used within the Copley Fire Department for personnel accountability purposes. Copley Fire Department's training uses hands-on or practical applications, classroom, and table top sessions to foster compliance with personnel accountability standard operating guidelines (B. Koellner, personal communication, August 27, 2008).

Members of the Bath Fire Department were also given the same questionnaire distributed to the Copley Fire Department. The personnel of Bath Fire returned 14 questionnaires on issues pertaining to personnel accountability within the department. Similar to the results of the Copley questionnaire, the majority of the members responded the Bath Fire Department does have a personnel accountability system, they have read and understand the guidelines, and the accountability system meets the requirements of NFPA. Bath Fire members answered that they utilize only one accountability program; a color-coded tag system. This tag system is part of the county-wide personnel accountability tag utilized by other departments. Members of Bath Fire Department replied the department has developed a standard operating guideline with distribution to all of those responding to the questionnaire. The majority also responded they have received accountability and Incident Management training with only one reply stating that he or she had not received training in Incident Management. The training consisted of a combination of classroom and hands-on training.

When asked if the officers and senior members of the Bath Fire Department enforce and implement an accountability system, 82% responded yes, the officers and senior personnel enforced and implemented the accountability system. A majority of the personnel reported they stored their tags on their helmets with the remaining members clipping their tags to their turnout gear. When asked if they were placed into a position making them responsible for personnel accountability, the response was almost evenly divided; those who had been assigned to an accountability position amounted to 54% while those who had not came to 47%.

The response was unanimous when asked which accountability system was used outside of Bath Township. The tag system was the personnel tracking tool most commonly encountered. However, when asked if there was any involvement in the type of accountability system selection process, 11 of the responses indicated no participation in the process. Lastly, when asked how often compliance is obtained with the personnel accountability procedures, 6 replied always, 6 usually, and 2 stated only when directed.

Members of the Fairlawn Fire Department were also requested to complete a questionnaire on personnel accountability. All members received a questionnaire and completed questionnaires were returned by 23 respondents. The results of the questionnaire can be found in Appendix B. Personnel were asked if they had received a copy of the department's standard operating guidelines on personnel accountability. Of the 23 questionnaires returned, all 23 stated yes to question number one, which asked if they had received a copy of the standard operating guideline for personnel accountability tags. Asked if they had received a copy of the standard operating guideline on the Grace T-PASS system, 22 of 23 replied yes they had received a copy. When members were

asked if they read the guidelines, 20 of 23 read the guideline for personnel accountability tags and 18 of 23 had read the guideline for the Grace T-PASS.

Personnel were asked if they had been issued personnel accountability tags and a Grace T-PASS unit. All respondents replied yes they had been issued both accountability tracking devices. When asked if members had received training within the last 12 months on either of the accountability systems, the results were split. Almost 48% of the members indicated they had not received training in the personnel accountability system using tags and 91% of the individuals answered they had not received training in the use of the Grace T-PASS accountability system. A related question asked members if they had received training in incident management within the past 12 months, in which 78% responded yes, they had received training in incident management.

Fire department members were asked if officers and senior personnel enforce the standard operating guidelines for either personnel accountability system. While the tag personnel tracking systems results indicate that a majority of the time, 56%, officers and senior personnel enforce standard operating guide, the opposite is true of the Grace T-PASS system where 82% of the questionnaires report that the Grace T-PASS accountability system standard operating guide is not enforced. Furthermore 100% of the questionnaires reported that on emergency scenes, the personnel accountability system using tags is more likely to be implemented.

The questionnaire results indicated that 20 of 23 respondents stored their personnel accountability tags on their helmets with 15 of 23 stating that they stored their issued Grace T-PASS device on the gear rack which is a storage area for their turnout equipment. However, when asked if the Grace T-PASS had been tested within the last

month, 16 of the 23 questionnaires indicated that no, the units had not been checked for proper operation.

The questionnaire also asked if personnel were placed into the position of accountability officer. The accountability officer tracks firefighters on the emergency scene. Only 3 individuals responded yes, they had been placed into the position of accountability officer. Incidents did occur where an accountability system was utilized. In the past 12 months 10 individuals responded yes, they had used the tag personnel accountability system. However, all 23 questionnaires were returned where no members responded to an incident where the Grace T-PASS accountability system was used. Additionally, when personnel responded to an incident beyond of the City of Fairlawn, all 23 questionnaires indicated that a tag accountability system was used in the area outside of the city's jurisdiction.

Lastly, the questionnaire asked respondents if any of the members were involved in the process to select an accountability tracking system. In both the tag system and the Grace T-PASS system an overwhelming majority of those returning the questionnaire responded no, they were not involved. The Grace T-PASS response was unanimously no while only one person responded they were involved in the personnel accountability tag system selection.

The third research question asks: What are the reasons firefighters are not adhering to the guidelines regarding the compliance of personnel accountability for the Fairlawn Fire Department? The results of the questionnaires lend credence to the assumption that personnel accountability systems are not being used on emergency scenes within the Fairlawn Fire Department.

In the questionnaire distributed to Fairlawn Fire Department personnel, only 44% responded that they had used an accountability procedure within the last 12 months, a low figure compared with the two neighboring departments, (71% and 93%) (Table 2).

Table 2

Have you responded to an incident within the last 12 months where the accountability tag system was used?	
	Yes
Fairlawn	44%
Copley	71%
Bath	93%

Further, the questionnaire results for Fairlawn indicate the Grace T-Pass system was never utilized during the previous 12 months. Additionally, the questionnaire asked if personnel tested their Grace T-Pass for proper operation within the past 12 months. Of those responding to the questionnaire, 70% replied they had not tested their T-Pass for proper operation.

The research question asks what reasons could be established for the lack of compliance to the department's standard operating guideline. One statement included in the questionnaire to all three departments asks if officers and senior personnel enforce the standard operating guide for accountability tags (Table 3).

Table 3

Do officers and senior personnel enforce the Standard Operating Guide for the accountability tag system?	
	Yes
Fairlawn	57%
Copley	69%
Bath	85%

Similar to the results regarding the extent of use of the accountability tag system within the past 12 months, the question inquiring if officers and senior personnel enforce the standard operating guide for personnel accountability systems indicates that Fairlawn Fire

Department staff ranked the lowest of the three organizations in enforcing the guideline (57% vs. 69% vs. 85%). Additionally, the Fairlawn Fire Department possesses the Grace T-Pass electronic accountability system, which Copley and Bath do not, and the questionnaire results indicate that officers and senior personnel do not enforce the guideline for that particular system. Only 18% of those responding to the questionnaire replied that the Grace T-Pass system was enforced by department officers.

Training was another area that may be targeted as a reason for the lack of standard operating guideline compliance for personnel accountability. An important component of personnel accountability at emergency scenes is training in the Incident Management System (IMS). Each department was asked if individuals had received training in IMS (Table 4)

Table 4

Have you received training in the Incident Management System (IMS) within the last year?	
	Yes
Fairlawn	79%
Copley	95%
Bath	91%

Here the results indicate that a majority of personnel have received training in Incident Management. The questionnaire also asked if members had received training on personnel accountability within the last 12 months (Table 5), and again the Fairlawn Fire Department ranks lowest of the three (48% vs. 89% vs. 100%).

Table 5

Have you received training on personnel accountability within the last 12 months?	
	Yes
Fairlawn	48%
Copley	89%
Bath	100%

Reiterating, the Fairlawn Fire Department is equipped with an electronic personnel tracking system, the Grace T-Pass. Members were asked if they received training in the use of that particular system. Only 9% had received training in the use of the Grace T-Pass personnel accountability system within the past year.

Each of the departments has standard operating guidelines addressing personnel accountability. The members of the three departments were asked if they received and read their respective department's standard operating guide on personnel accountability (Table 6). Having a copy of the standard operating guide is not enough. The members need to be familiar with and understand the importance of the standard operating guideline in order to maintain a consistent method in practicing personal accountability. Table 6 indicates that the Fairlawn Fire Department members have received and read the standard operating guidelines; ranking higher than either Bath or Copley.

Table 6

Have you received a copy of your department's Standard Operating Guideline on personnel accountability?	
	Yes
Fairlawn (Tags)	100%
Fairlawn (T-Pass)	96%
Copley	59%
Bath	100%

Have you read the Standard Operating Guideline on personnel accountability?	
	Yes
Fairlawn (Tags)	87%
Fairlawn (T-Pass)	79%
Copley	65%
Bath	91%

Along with receiving a copy of the department's standard operating guideline, Fairlawn personnel were asked if they received personnel accountability tags and an electronic Grace T-Pass accountability device. The results were unanimous; all members



responding to the questionnaire received both accountability devices. Members of each organization were also asked about participation in the selection process for an accountability tracking device (Table 7). The results from the questionnaires were similar among all three departments. The results indicate low employee participation or input into an accountability system with no Fairlawn respondent involved in the process.

Table 7

Were you involved in the selection process for the accountability system selected for your department?	
	Yes
Fairlawn	0%
Copley	7%
Bath	16%

The literature review delves into potential issues and proposes answers to the research questions. Data from the questionnaires address potential explanations for non-compliance with personnel accountability within the Fairlawn Fire Department. In the next section the Literature Review and questionnaire results will be integrated as the author sketches out a picture of the current state of the Fairlawn Fire Department regarding personnel accountability. Total results of the questionnaires distributed to fire department members are located in Appendices B and C.

Discussion

NFPA has established national standards addressing the issue of personnel accountability. The relevant standards are described in the literature review and in the procedures section of this applied research paper. The standards, such as NFPA 1500, are clear as to the implementation of a personnel accountability system.

The Fairlawn Fire Department has developed and distributed standard operating guidelines which meet the intent of NFPA. These guidelines inform each member of a

standard course of action (Cook, 1998). The department has two guidelines to address personnel accountability; one for tag accountability, which is incorporated into the countywide guideline, and one for the T-Pass electronic system. Both guidelines are considered current with the personnel accountability guideline using tags last updated on July 31, 2008, and the Grace T-Pass standard operating guideline system last revised on May 19, 2005. See Appendix A. The Fairlawn Fire Department meets the intent of NFPA 1500 with the distribution of the standard operating guidelines to all members.

The National Fire Protection Association addresses the implementation of a personnel accountability system through NFPA 1521. In this standard the designated fire department safety officer is responsible to oversee that a personnel accountability system is utilized by all department members. There are emergency incidents at which a safety officer is designated; however, the Fairlawn Fire Department Organizational Chart lacks the position. The Fire Administration has developed and distributed job responsibilities for all full-time personnel. Within the job descriptions the position of Lieutenant IV has been designated as the department's training and safety officer (Fairlawn Fire Department, 2008). This position is a 40-hour, weekday position, intended to promote and foster consistency among the three 24-hour shifts. The position of safety officer has been technically created, meeting part of NFPA 1521, however ensuring implementation of personnel accountability is lacking, as indicated in the results of the questionnaires.

All personnel on the Fairlawn Fire Department are issued color coded plastic accountability tags along with a battery operated electronic Grace T-Pass which is programmed with each member's name and unit number. NFPA 1500 requires all personnel working in an IDLH atmosphere to wear a PASS device (NFPA, 2002a). The

Fairlawn Fire Department is equipped with self-contained breathing apparatus (SCBA) that contain built-in PASS devices. The department meets the requirements of NFPA 1500 which state “Each member shall be provided with, use, and activate his or her PASS devices in all emergency situations that could jeopardize that person’s safety due to atmospheres that could be IDLH” (NFPA, 2002a). The department has a weekly check established to check SCBA PASS units for proper operation. There exists no such check for the Grace T-Pass units and, furthermore, 70% of the respondents to the Fairlawn questionnaire stated they had not tested their department issued Grace T-Pass electronic personnel accountability device for proper operation within the past 12 months.

Members are aware that the Grace T-pass units are to be worn on all emergency runs. Department personnel have been notified in previous departmental communications to utilize their Grace T-Pass units. A department memo was issued on May 21, 2007 that reinforces the utilization of the units. It states that anytime personnel don fire gear, they are to utilize their T-Pass unit (R. Hose, personal communication, May 21, 2007). The obvious question is why should department personnel wear two PASS devices especially when the electronic accountability system can only be used on fires within the City of Fairlawn and only track Fairlawn firefighters. The last working structure fire at which Fairlawn firefighters were requested occurred as a result of an automatic response agreement to a neighboring community. Neighboring communities use the Summit County tag system and are not equipped with the Grace T-Pass accountability system, rendering any individual unit issued to Fairlawn personnel as inoperable.

The author interviewed the Fire Chief asking him for reasons why personnel did not utilize their department issued electronic T-PASS units. He replied that he believed

members were complacent and felt the electronic units were cumbersome, preventing them from donning their SCBA units while en-route to an emergency call (G. Goodrich, personal communication, September 20, 2008). While the Grace T-Pass devices are little larger than a cell phone, which members carry at will, personnel have been directed to attach the units to their department issued turn out coat. This allows them to remove their firefighting gear from the rack with the unit pre-attached to their turn out coats. The T-Pass has a clip which is connected via a lanyard to the gear rack which, when the coat is removed from the rack, activates the unit. Further, a quick scan of firefighter gear will find all sorts of add-on equipment, such as glove clips, radio microphones, and ropes which personnel readily attach to their gear and still don SCBA units with no apparent issues.

The issue of complacency is a very real problem experienced by many other fire service organizations. The Fire Chief's assertion that members are complacent may be plausible; however, the department's complacent attitude may only be scratching the surface of the reasons for the lack of personnel accountability compliance. As noted in the questionnaire, respondents indicated that officers and senior personnel only enforced the department's personnel tag accountability guidelines 57% of the time. Compared to Bath and Copley, where enforcement was 85% and 69%, respectively, Fairlawn members were only complying with the guidelines at little over half of all incidents. Additionally, the results of the questionnaire indicated the Grace T-Pass system was never used. The consensus to the non-use of the electronic system is the belief by the department that the Grace T-Pass system was a unilateral purchase that lacked employee engagement. It was even referred to as a "wheel chock", a piece of equipment placed against a tire to prevent

apparatus from rolling when parked, at a departmental officer's meeting. This adds support to the complacency issue. But why does this complacent attitude exist, and how is it combated?

Kotter (1996) offers nine reasons for complacency within an organization. All of his reasons may be witnessed to a certain extent within the Fairlawn Fire Department; however, at least three are very perceptible. First, that there is no visible crisis, is readily apparent by the amount of emergency runs experienced by the department. Department records indicate the last confirmed working structure fire in the City of Fairlawn was over a year ago, on June 13, 2007 (K. Bauer, personal communication, September 26, 2008). The department routinely experiences responses for fire alarm drops which typically have dispositions including fire alarm system malfunctions, smoke from burnt food, or miscellaneous reasons of non-fire origin, such as construction dust. These repeat calls for service often reinforce a complacent attitude among the department members. These repeated calls for similar alarm drops with predictable outcomes reinforce Kotter's first reason of no visible crisis.

But Kotter can be expanded upon here. The Fairlawn Fire Department has not suffered life-threatening injuries or deaths from firefighting. No department member has died in the line of duty performing firefighting duties. This adds to the attitude "it won't happen to us". Linstrom (2008) states the essence of complacency:

Every time we dodge the bullet and survive an interior attack with two three-person crews, and every time we bypass the passport system on our rig and disregard the riding list or change the visible numbers on our helmets with no one getting lost at a fire scene, we have succumbed to complacency. (p. 24)

However, the department has the same potential for catastrophic events as other fire departments have experienced and, therefore, there exists real urgency for utilizing a personnel accountability system. The issue is that the personnel do not experience that urgency.

Kotter (1996) explains creating a sense of urgency is one method to decrease the attitudes prevalent in organizations stricken with complacency. Heifetz and Linsky (2002) describe it as creating disequilibrium. As the Fairlawn Fire Chief stated, “It may take a tragic incident to comply with accountability” (G. Goodrich, personal communication, September 20, 2008). However, the fire service has already suffered enough tragedy to establish a sense that urgency is here and now. Organizations and communities can ill afford a tragic event to promote change. The most tragic firefighter event of 2007, in which nine Charleston, South Carolina, firefighters died, attributes the lack of an accountability system as a significant factor to the loss of firefighter life (Angulo, 2008). Wearing a personnel accountability device, whether tag or electronic, needs to be a mindset, that members believe in and have bought into, as opposed to a piece of equipment which was added to their toolboxes with a memo that states “use it”. The sense of urgency needed to combat complacency is lacking in the Fairlawn Fire Department.

Let’s return to the literature review and revisit one of the cited references, the General Motors Spring Hill Manufacturing facility. The facility has fostered a culture promoting safety within the organization based on five elements. The leadership at General Motors created an atmosphere that fits Kotter’s sense of urgency. Any complacency will be reduced as urgency is elevated. The company implemented five

principles which are then blended into corporate culture. Let us also return to the interview with John Anfield and how Rolls Royce implemented its Human Factors campaign. Employee accountability was raised by the development of this employee program in which the safety of the airline passenger was a key issue. Once again this fits Kotter's raising the level of urgency principle as Rolls Royce used the lives of the airline industry's customers as a rally point for improved product safety and quality. The lives of the traveling public elevated Rolls Royce's urgency.

Another of Kotter's principles that is symptomatic of the Fairlawn Fire Department is the false sense of security into which personnel are lulled. It's what Kotter terms "Happy talk". Organizations often experience near misses or close calls where an incident occurred, but, luckily, no one was injured. The comment often heard after the fact is "as long as everyone is OK", or "the bottom line is nobody was hurt". This is a result of past successes that very easily could have been tragedies. These attitudes are further exacerbated when change is sought to prevent a similar reoccurring event, only to be met with statements such as "if it isn't broke, why fix it?" Complacency is perpetuated. The status quo culture finds a deeper foundation and change is harder to implement.

Another factor promoting complacency is the one in which organizational focuses are narrow or, in the case of the Fairlawn Fire Department, lacking identifiable goals. Ask the members of the department what their reason for providing a service and the response will be as varied as the make-up of the department. An organization needs a focal point; one that can rally the troops. It needs to be a goal believed in by the personnel who have a vested interest in it and are empowered to work toward achieving

it. Then when members are required to wear an accountability device, they do so because it meshes into their focus, builds upon their goals, and promotes their own safety which becomes an element of the department's holistic culture.

The issue of complacency and its causes can be seen in the results of the questionnaire. Questions asking if personnel have been issued accountability devices and standard operating guidelines have shown a majority have received the tracking hardware. These are technical aspects of problem solving in which a fix is often instituted in the form of new equipment or mandated procedures. The same can be said of training. One of the statements in the questionnaire read "Have you received training in accountability or Incident Management". Overwhelming yes, they had received the offered courses. But asked if the guidelines are enforced and the picture is less clear. The Executive Development course emphasizes problem solutions using adaptive challenges as opposed to technical fixes. Non-compliance needs adaptive challenge skills espoused in Executive Development. Reasons for non-compliance to personnel accountability and the resolution to these issues is an adaptive challenge. To bluntly state "the members have been given the equipment and training; it is their responsibility to use it", constitutes a technical fix to a problem requiring an adaptive challenge solution.

One road block to effective resolution in adaptive challenges is the lack of communication. Communication is a two-way avenue that not only disseminates information from the top down, but also from the bottom up. One way to communicate information is through training. However, department training records indicate no personnel accountability training has been instituted since January of 2007 (J. Joy,



personal communication, September 23, 2008)). No communication on training has taken place on the issues and concerns of personnel accountability.

Members of the Fairlawn Fire Department stand to benefit if they are trained in the use of an effective personnel accountability system. An approach to training that fosters empowerment is through coaching. Whitmore (2002) uses the analogy of a youngster learning to hit a baseball. Instead of telling the child to watch the ball, use a term such as look for the rotation on the ball. When you tell a student to watch the ball, the response is typically I am watching the ball. But using terms such as look for the spin on the ball also returns feedback to the instructor which gives information including which way the ball is rotating and if the pupil does actually see the ball. The same coaching concepts can be used in the fire service. Fire departments are tradition rich organizations that tell the firefighters, for example, to wear an accountability device because they were instructed to wear one. Coaching by example is an important item in obtaining compliance to any guideline or new change.

When department officials lead by example, they are setting the tone for what is to be expected from the troops. However, leadership failing to set an example can say far more than any verbal component. Their behavior, or lack of it, will be taken as the model to emulate (Whitmore, 2002). If the department has no training or coaching on personnel accountability, this sends a message to personnel that the training is unimportant. The absence of any personnel accountability training since January 2007 sends a message through the organization that personnel tracking must not be that important. Complacency gains and has gained a very strong foothold.

Distributing a memo or directive instructing personnel on the utilization of personnel accountability systems is a one-way communication. The implementation of a tracking system requires communication skills that provide the opportunity for employees to ask questions and to become familiar with the intended action. The Fire Department's Chief Officers need to promote employee empowerment and one way to accomplish the intended employee buy-in is to garner support from the mid-level officers to help support the proposed change. If the department officers believe in and are sold on the benefits of the accountability system then it will be easier to sell the program to the rank and file. However if department administration cannot agree on the new change and mid level managers see the division, or the mid-level managers fail to see the value of the accountability system then the proposal is doomed to failure.

This is the situation facing the Fairlawn Fire Department. Members have been asked to utilize one of two accountability tracking systems and see a divisive attitude on the use of one system in particular; the Grace T-Pass. The tag system is a valid method of tracking firefighters but complacency intervenes here and the tags remain on turnout gear when needed. Remember the tag system is only used 57% of the time according to the questionnaire results. Members of the organization have not bought into the Grace T-Pass, as evident by the total disregard of the system. Complacency, lack of focus, and failure to sell department firefighters on the benefits and importance of personnel accountability systems rank high as explanations for accountability non-compliance.

### Recommendations

Recommendations for improving personnel accountability compliance in this applied research paper are aimed at reducing complacency, implementing a holistic

vision granting all members a focal point to which they can tie their own personal goals and improving the communication mediums used to inform and engage members of the Fairlawn Fire Department. These efforts can then be applied to foster a compliant attitude towards personnel accountability. There are a variety of technical fixes that can or have been tried but the recommendations within address adaptive challenges. One technical fix recommendation includes the elimination of the T-Pass accountability system. It is only applicable if the emergency scene is in the City of Fairlawn and operates solely for Fairlawn Fire personnel who are on scene. Any incoming personnel from outside jurisdictions, in which the Fairlawn Fire Department relies heavily upon, neither possess Grace T-Pass components nor are trained in its use. Furthermore any response by Fairlawn fire personnel to neighboring communities, due to automatic or mutual aid agreements, effectively eliminates the use of Grace T-pass units because no other community possesses a Grace unit to track personnel. This may be a technical recommendation; however, the symbolic importance of listening to department members on the status of the Grace T-Pass system carries great weight.

Another recommendation is the implementation of a training program that revolves around the development, and establishment of accountability tracking at emergency scenes. As evident by the training records over the past two years, there has been no training for personnel on the procedures, either classroom or actual, to encourage the use of either the tag accountability system or the Grace T- Pass system. A training session utilizing a coaching approach seems important and has the potential to make a difference.

A coaching approach is more than just placing the material or items into the member's hands along with an "it's your responsibility to use it" mentality. Coaching promotes unlocking a person's potential and helping him or her to learn (Whitmore, 2002). The Chief suggested a pledge by each member to use accountability procedures or risk discipline (G. Goodrich, personal communication, September 20, 2008). Coaching to promote a learning environment along with employee empowerment will go farther than and less painfully than disciplinary actions. Coaching is a proactive approach to accountability non-compliance whereas discipline is a reactive measure. Coaching is an approach to adaptive challenges. Adaptive techniques would effectively address the issue of personnel accountability non-compliance and meet the purpose and intent of the National Fire Academy's Executive Development course.

Complacency affects all forms and types of businesses and is very apparent in the personnel accountability practices within the department. It can become common place in organizations, such as fire departments, due to the periods of downtime. In order to combat personnel accountability tracking complacency, a sense of urgency needs to be instilled amongst the members of the department. This sense of urgency requires that those who are complacent are recognized. In the case of the Fairlawn Fire Department, the entire organization is culpable. Oftentimes, individuals within the organization do not view themselves as complacent (Kotter, 2008). So identifying those who are complacent can be a starting point to address the issue.

But how does an organization raise the level of urgency? One way is to take every opportunity to communicate and address issues on a daily basis. For example, in a normal workday around the fire station, there exists numerous instances to reinforce safety

issues, such as complying with personnel accountability, which go uncorrected because nothing damaging occurred as a result. Personnel do not wear accountability tracking devices due to the absence of any health threatening incidents. These opportunities exist on every shift and largely go unnoticed or disregarded. Raising the level of urgency can be enhanced by paying attention to the details that regularly occur. For instance when a vehicle is backed into the fire station, without incident, and no one acts as a spotter, complacency is perpetuated. The apparatus was successfully backed in and nothing happened or was damaged. Firefighters respond to an alarm drop, without personnel accountability devices, and nothing bad occurs. Complacency wins again. These are the opportunities that all members can use to raise the sense of urgency. Members at all levels need to be coached to address any safety issue, no matter how minor the situation is perceived to be.

The communication of safety issues such as personnel accountability is a key to raising the level of urgency. An opportunistic time to convey safety issues, department guidelines, new technology or ideas, and general rules and regulations is at a department officers or full-time meeting. However the Fairlawn Fire Department has not conducted an officers meeting since February 11, 2008 and that meeting was the first held since September 26, 2006 (J. Zubay, personal communication, September 12, 2008). Complacency grows when the organization sees a lack of communication. If it's not important to the department leadership to conduct meetings, then the body feeds off of the complacency generated by the example. The department can raise the level of urgency by routinely conducting staff meetings and using the time to reinforce the safety

concerns. This is also an ideal time to focus the group on the importance of personnel accountability and to set common goals.

This is an example of one occasion to provide the employees with new information or reinforce safety issues. But it is also an opportunity to win over or persuade the staff to buy into the projects, programs, and actions needed to improve the organization. Further it builds upon the goals and focuses the concepts onto the departmental goals. It is a chance to set the example or to raise the bar to a level that minimizes complacency.

Beyond the meetings or trainings, officers and members in leadership positions need to practice urgency during their daily routines. Opportunities abound in the arena of safety which require constant vigilance. Personnel need to stand up and address safety issues and set or lead by example. Kotter (2008) states this in the following quote:

They behave with true urgency themselves every single day. They do not just say the right words daily, but, more importantly, they make their deeds consistent with their words. They do so as visibly as possible, to as many people as possible, all in ways designed to reduce contentment with the status quo and the anxiety or anger that comes so easily with failure. (p. 58)

The point is leadership needs to show the way by leading by example. Raising the sense of urgency shows a commitment to safety and demonstrates that urgency is part of a leader's values and beliefs which is then perceived by department members.

The members of the Fairlawn Fire Department need a vision. A focused vision will help combat the debilitating effects of complacency causing non-compliance of personnel accountability by rallying firefighters to a common safety goal. The vision can

be established and developed by an eclectic group of fire department members. This group or committee then has a vested interest that promotes empowerment and espouses the values of personnel accountability safety. The program can then be championed at departmental meetings and training sessions. It has the input of a wider facet of the group and eliminates unilateral mandates.

In summary the Fairlawn Fire Department meets the requirements of NFPA standards. These suggested practices are in place and can be largely considered technical fixes addressing personnel accountability. The non-compliance issues of personnel accountability can be traced to complacency, a blurred departmental vision, and lack of consistent and effective training and communication. Complacency can be contended with by increasing the sense of urgency. Communication, training, and focus can be improved by leaders setting an example that percolates throughout the organization. These practices will improve personnel accountability practices and can be applied to any safety initiatives proposed for the Fairlawn Fire Department.

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## Appendix A

# Standard Operating Guide Fairlawn Fire Department Effective: May 19, 2005



201.300

Subject: **Grace T-Pass**

Purpose: The Grace T-Pass is a secondary means of accountability for fire ground personnel. It does not replace the currently implemented Summit County accountability system (green and red tags). See 100.800, [Summit County ICS – Personnel Fire Ground Tag System SOG](#). The system is capable of automatically accounting for all Fairlawn Fire personnel who have activated their individually issued unit. This is accomplished when the accountability key for the PASS unit is detached from the PASS unit, the control board will automatically account for the individual.

*Grace T-PASS Command Board.*

## Procedure:

1. Command Board to be kept on supervisor's vehicle – 3626.
2. As a general rule personnel shall keep the lanyard hooked onto either the gear rack or jacket hanger. The only exceptions to this are if the Shift Supervisor places his gear in the supervisor's vehicle and if personnel are leaving the station with their gear for miscellaneous errands / drive time.
3. The only way the unit can be taken out of being actively monitored is to have the "key" attached. Should the wearer need to doff his turnout coat, the T-PASS device shall be placed somewhere on his /her bunkers so they can be monitored while on the fire ground.
4. It is important to remember that each T-PASS unit has been assigned specifically to each member of the department. Therefore, it is imperative, for reasons of accountability, that turnout gear not be shared unless that member's T-PASS unit is replaced with the T-PASS unit of the person who is wearing it.
5. The system should be turned on for the IC to monitor. As personnel arrive, consider assigning a designated Accountability Officer.
6. If functioning in the capacity of the Accountability Officer, remember that both of our auto response departments will not have T-Pass units. This will be important when they arrive and later if a PAR (Personnel Accountability Report) is called for by the IC.
7. The system has the ability to evacuate one member, the members on the screen, or everyone who is "logged" in. Should an evacuation be necessary, follow the current SOG on Emergency Evacuations and supplement this with an evacuation of everyone using the T-PASS. This "all evacuation" should be done so everyone on the fire ground is aware that conditions for an interior attack have been considered to be an IDLH environment.
8. The command board can be used as a way to supplement a PAR. However, keep in mind the limitations of the system and precede a PAR of the command board with a manual report from all members on the fire ground to include mutual aid companies and off-duty personnel.
9. If an emergency evacuation is received by the wearer, he/she shall acknowledge receipt of the signal and immediately evacuate the IDLH environment.
10. In the event the wearer becomes lost or disoriented or is in need of immediate assistance, the T-PASS unit can be

manually activated by depressing the center button and this will send a distress signal to the operator of the command board. Keep in mind that your Drager air pack has a manually activated PASS alarm.

11. In the event your T-PASS alarm begins to “chirp” a low battery alarm, you will have less than one hour of battery life left. Two things must be done at this time: remove yourself from an IDLH environment and remember that if your battery runs dead, the command board will still show you as being “logged in”.

*T-PASS mounted on gear rack and attached to gear.*



*T-PASS with key attached.*



## **Standard Operating Guide Fairlawn Fire Department Effective: July 31, 2008**

100.800

Subject: **Summit County ICS - Personnel Fire Ground Accountability System**

Goal: To use an accountability system that will track all incident personnel within an appropriate time frame for the job assignments at hand.

Intention: The firefighter will provide a name tag, upon emergency scene arrival, to be placed on the vehicle they report to. This will help ensure that the fire ground commander knows how many people are under his control. When assigned to a task in the hot zone, the firefighter will provide another tag to the sector officer. This accountability will help determine how many personnel might need to be evacuated and if everyone interior to a structure has returned to the exterior safely.

Procedure: The rotation of manpower will be used by the Incident Commander during extended operations to provide an effective on-going level of personnel performance. The Safety Sector or Accountability Officer, when assigned, will assist in identifying the time frame and coordinating the rotation of manpower during such campaign operations. It is the intent of this policy to reduce the fatigue and trauma experienced during difficult operations to a reasonable and recoverable level and is no way intended to lessen the individual and collective efforts expected of all members during field operations.

The capability of sector and company officers to account for any individual under their command at any time is an absolute necessity and must be maintained. In order for sector officers to account for individuals, the identity of those members they are trying to account for must be known.

In an effort to insure accountability, a standard method for accurately recording the identity of the personnel assigned to any task or sector at any time must be available on the scene, preferably at the command post, for reference.

The following system for personnel identification shall be adhered to by all field personnel. This system provides a record for

personnel assigned to a task and may be used for on scene reference as needed.

Each member will have two (2) name tags attached to their turnout gear, one green, and one red.

An accountability ring will be located on each fire department vehicle, in the vicinity of the radio control head; this shall be referred to as the Personnel Identification Holder.

Each member, upon reporting to duty (arriving on scene), will remove the green name tag and place it on the Personnel ID holder. Upon release of duty (released from scene), the member will return the green name tag to their turnout gear.

There must be a name tag in place on the holder for each member reporting to that vehicle.

IF A FIREFIGHTER IS ON THE TRUCK HIS NAME TAG IS ON THE HOLDER.

IF A FIREFIGHTER IS NOT ON THE TRUCK HIS NAME TAG IS NOT ON THE HOLDER – NO EXCEPTIONS. Each member will be responsible for completing his/her part of this process.

The sector officer will be responsible for insuring that the Personnel Identification Chart accurately reflects the status of the members at all times.

It also becomes necessary as an accountability measure for sector officers to utilize a standard system of accurately recording the identity of individuals assigned to operate in high hazard areas, particularly in instances where individual assignments are made which place members in precarious positions.

The following system of personnel accountability shall be utilized on the sector level as needed.

The back side of all command clipboards used by anyone who may at any time become a sector officer will have a ring to place accountability tags.

When a sector officer makes an assignment which may place members in high risk positions, i.e. interior entry, the officer shall



collect from each assigned member his remaining red name tag and will place it on the clipboard.

Sector officers shall account for each member. Upon completion of the assignment, each member collects their respective name tag.

At anytime a firefighter cannot be accounted for the Incident Commander shall be immediately notified and an immediate evaluation of the situation shall be made. Any decision process will include firefighter rescue as a priority. It will be the responsibility of the Incident Commander to decide on immediate action to take.

## Appendix B

## Results of Fairlawn Fire Department Questionnaire

National Fire Academy  
Executive Fire Officer Program  
Executive Development  
Lt. E. Schepp  
Fairlawn Fire Department Questionnaire

Dear Member:

I am asking for your assistance in completing a questionnaire as part of my research for the National Fire Academy's Executive Fire Officer Program, Executive Development course. This questionnaire aims to collect data on the individual compliance on the practice of adhering to the policies and procedures involved in the use of accountability systems instituted by the Fairlawn Fire Department. Your answers will be used for the research project and if you wish to learn the results of the questionnaire, feel free to contact me at your convenience. Thank you for taking the time to complete this questionnaire.

Directions: Read each statement and place a check on the line next to your answer. Please, only one answer per statement. Return to my desk by August 20, 2008. Once again thank you for participating in this research project.

1. Have you received a copy of the Fairlawn Fire Department's Standard Operating Guideline for use of the accountability tags (SOG #100.300)?

Yes 23                      No 0

2. Have you received a copy of the Fairlawn Fire Department's Standard Operating Guideline for use of the Grace T-pass accountability system (SOG #201.300)?

Yes 22                      No 1

3. Have you read the Standard Operating Guideline for using the accountability tags?

Yes 20                      No 3

4. Have you read the Standard Operating Guideline for using the Grace T-pass accountability system?

Yes 18                      No 5

5. Have you been issued accountability tags?

Yes 23

No 0

6. Have you been issued a Grace T-pass accountability device?

Yes 23

No 0

7. Have you received training on the tag system within the past 12 months?

Yes 11

No 12

8. Have you received training on the Grace T-pass system within the past 12 months?

Yes 2

No 21

9. Do officers and senior personnel enforce the Standard Operating Guide for the accountability tags?

Yes 13

No 10

10. Do officers and senior personnel enforce the Standard Operating Guide for the Grace T-pass system?

Yes 4

No 19

11. If an accountability system is utilized on emergency runs, which system is more likely to be used?

Accountability tags 23

Grace T-pass 0

12. If issued accountability tags, where are they stored?

Clipped to helmet 20

Clipped on turnout gear 2

In turnout pockets 0

On turnout gear storage rack 1

Other 0

13. If issued a Grace T-pass accountability device, where is it stored?

In turnout pocket 7 On turnout gear storage rack 15

Other 0

14. If issued a Grace T-pass accountability device, have you tested it for proper operation within the last month?

Yes 7

No 16

15. Have you been assigned to the position of Accountability Officer, responsible for personnel tracking, on emergency scenes within the last 12 months?

Yes 3

No 20

16. Have you responded to an incident within the last 12 months where the accountability tag system was used?

Yes 10

No 13

17. Have you responded to an incident within the last 12 months where the Grace T-pass accountability system was used?

Yes 0

No 23

18. When responding to areas outside of the City of Fairlawn, which accountability system is used?

Accountability tags 23

Grace T-pass 0

Other 0

19. Were you involved in the selection process for the accountability tag system?

Yes 1

No 22

20. Were you involved in the selection process for the Grace T-pass accountability system?

Yes 0

No 23

21. Have you received training in the Incident Management System (IMS) within the last year?

Yes 18

No 5

## Appendix C

## Results of Questionnaire - Bath and Copley Fire Departments

National Fire Academy  
Executive Fire Officer Program  
Executive Development  
Personnel Accountability Questionnaire

Dear Bath Firefighter:

My name is Edward Schepp, Lieutenant with the Fairlawn Fire Department. I am currently participating in the first year of the National Fire Academy's Executive Fire Officer Program. The program requires each participant to complete an Applied Research Project (ARP). This project includes research and data gathering in order to support an individual ARP proposal. I am asking for your help in obtaining data for my ARP project on the issue of adhering to the guidelines on personnel accountability on emergency scenes.

Attached you will find a questionnaire on the accountability practices used in the Bath Fire Department. Your department was chosen due to our close working relationship and similarities in size and operation. The information garnered from this questionnaire will be used for research purposes and anyone requesting the results is welcome to contact me at the Fairlawn Fire Department. I wish to thank you for your assistance and I appreciate your time to complete this questionnaire.

Directions: Read each statement and place a check on the line next to your answer; only one answer per statement. Please return to Assistant Chief Tim Gemind by August 22, 2008, who will in turn forward the completed questionnaires. Once again thank you for your assistance on this project.

1. Does the Bath Fire Department have a personnel accountability system?

Yes 13                      No 0

2. If yes to question #1, does your personnel accountability system meet the requirements of NFPA?

Yes 10                      No 0

3. If yes to question #1, how many personnel accountability systems does your department use?

One 11                      Two 2                      Three or more 0

4. If yes to question #1, what type of personnel accountability system does your department use?

Accountability tags 12

Electronic devices 0

Both 1

None of the above 0

5. Does the Bath Fire Department have a Standard Operating Guide addressing personnel accountability use and procedures?

Yes 10

No 0

6. Have you received training on personnel accountability within the last 12 months?

Yes 11

No 0

7. Have you received training in the Incident Management System (IMS) within the past year?

Yes 10

No 1

8. If yes, please indicate what type of training.

Classroom 1

Practical 0

Both 9

9. Have you received a copy of your department's Standard Operating Guideline on personnel accountability?

Yes 9

No 0

10. Have you read and understand your department's Standard Operating Guideline on personnel accountability?

Yes 10

No 1

11. Do officers and senior personnel enforce and implement your department's Standard Operating Guideline on personnel accountability?

Yes 11

No 2

12. If issued accountability tags, where are they stored?

Clipped to helmet 8

Clipped on turnout gear 4

In turnout pockets 0

On turnout gear storage rack 0

Other 1

Not issued 0

13. If issued an electronic accountability device, where is it stored?

In turnout pockets 0                      On turnout gear storage rack 0  
Other 1                                      Not issued 9

14. Have you been assigned the responsibility of tracking personnel or accountability on an emergency scene within the last 12 months?

Yes 7                                      No 6

15. Have you responded to an incident within the last 12 months where the personnel accountability tag system was used?

Yes 12                                      No 1

16. When responding to areas outside of your jurisdiction, which personnel accountability system is used?

Accountability tags 13                      Electronic device 0                      Other 0

17. Were you involved in the selection process for the accountability system specified for your department?

Yes 2                                      No 11

18. How often do you comply with the Accountability Standard Operating Guideline?

Always 6                      Usually 6                      Never 0  
Only when directed 2

National Fire Academy  
Executive Fire Officer Program  
Executive Development  
Personnel Accountability Questionnaire

Dear Copley Firefighter:

My name is Edward Schepp, Lieutenant with the Fairlawn Fire Department. I am currently participating in the first year of the National Fire Academy's Executive Fire Officer Program. The program requires each participant to complete an Applied Research Project (ARP). This project includes research and data gathering in order to support an individual ARP proposal. I am asking for your help in obtaining data for my ARP project on the issue of adhering to the guidelines on personnel accountability on emergency scenes.

Attached you will find a questionnaire on the accountability practices used in the Copley Fire Department. Your department was chosen due to our close working relationship and similarities in size and operation. The information garnered from this questionnaire will be used for research purposes and anyone requesting the results is welcome to contact me at the Fairlawn Fire Department. I wish to thank you for your assistance and I appreciate your time to complete this questionnaire.

Directions: Read each statement and place a check on the line next to your answer; only one answer per statement. Please return to Lieutenant Bruce Koellner by August 22, 2008, who will in turn forward the completed questionnaires. Once again thank you for your assistance on this project.

1. Does the Copley Fire Department have a personnel accountability system?

Yes 16                      No 1

2. If yes to question #1, does your personnel accountability system meet the requirements of NFPA?

Yes 13                      No 2

3. If yes to question #1, how many personnel accountability systems does your department use?

One 6                      Two 9                      Three or more 0



4. If yes to question #1, what type of personnel accountability system does your department use?

Accountability tags 8                      Electronic devices 0  
Both 9                                          None of the above 0

5. Does the Copley Fire Department have a Standard Operating Guide addressing personnel accountability use and procedures?

Yes 13                      No 4

6. Have you received training on personnel accountability within the last 12 months?

Yes 15                      No 2

7. Have you received training in the Incident Management System (IMS) within the past year?

Yes 16                      No 1

8. If yes, please indicate what type of training.

Classroom 3                      Practical 0                      Both 10

9. Have you received a copy of your department's Standard Operating Guideline on personnel accountability?

Yes 10                      No 7

10. Have you read and understand your department's Standard Operating Guideline on personnel accountability?

Yes 11                      No 6

11. Do officers and senior personnel enforce and implement your department's Standard Operating Guideline on personnel accountability?

Yes 11                      No 5

12. If issued accountability tags, where are they stored?

Clipped to helmet 3                      Clipped on turnout gear 11  
In turnout pockets 1                      On turnout gear storage rack 0  
Other 1                                          Not issued 1

13. If issued an electronic accountability device, where is it stored?

In turnout pockets 0                      On turnout gear storage rack 0  
Other 8                                      Not issued 3

14. Have you been assigned the responsibility of tracking personnel or accountability on an emergency scene within the last 12 months?

Yes 4                                      No 13

15. Have you responded to an incident within the last 12 months where the personnel accountability tag system was used?

Yes 12                                      No 5

16. When responding to areas outside of your jurisdiction, which personnel accountability system is used?

Accountability tags 15                      Electronic device 1                      Other 2

17. Were you involved in the selection process for the accountability system specified for your department?

Yes 1                                      No 15

18. How often do you comply with the Accountability Standard Operating Guideline?

Always 4                      Usually 6                      Never 1  
Only when directed 5